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Application No. 10/762,240
Amendment dated 07/21/2006
First Preliminary Amendment

Docket No.: 215407-106338

AMENDMENTS TO THE CLAIMS

1-25. (Cancelled)

26. (New) A filter element comprising:

a filter media including a first material, wherein the filter media includes a clean side face; and

a seal including a second material bonded to the clean side face, wherein the seal is bonded to a perimeter of the clean side face to form a flange portion integral with the filter media.

27. (New) The filter element according to claim 26 further comprising a rim portion, wherein the rim portion is bonded to a perimeter of the filter media, wherein the perimeter of the filter media includes at least one side surface of the filter media.

28. (New) The filter element according to claim 27, wherein the seal includes a second flange portion integrally-extending from the flange portion in a perpendicular direction with respect to the least one side surface of the filter media, wherein the second flange portion is adapted to overlay and seal a ledge of the filter housing.

29. (New) The filter element according to claim 26, wherein the rim portion is adapted to radially engage and seal an inner surface of the filter housing.

30. (New) The filter element according to claim 26 further comprising a flexible portion extending from the flange portion that is adapted to be compressed by a lid of a filter housing.

31. (New) The filter element according to claim 30, wherein the flexible portion includes a pair of flexible flange portions that extend obliquely in divergent directions from the flange portion.

32. (New) The filter element according to claim 30, wherein the flexible portion includes a U-shape portion having a first leg and a second leg.

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33. (New) The filter element according to claim 30, wherein the flexible portion includes a bulb seal including a void.
34. (New) The filter element according to claim 26, wherein the first material is a pleated filter media including cellulose, cellulose blends, polyester fibers, or polypropylene fibers.
35. (New) The filter element according to claim 26, wherein the second material includes thermoplastic elastomer (TPE) embedded in ethylene-polyene terpolymer rubber (EPDM).
36. (New) A filter element comprising:
a filter media including a first material, wherein the filter media includes a clean side face;
a rigid frame including a second material bonded to the clean side face, wherein the rigid frame is bonded to a perimeter of the clean side face to form a flange portion integral with the filter media;
a seal including a third material bonded to the rigid frame, wherein the seal is bonded to a perimeter of the rigid frame to form a seal flange portion integral with the rigid frame.
37. (New) A method for manufacturing a filter element comprising the steps of:
inserting a filter media including a first material into an injection molding machine, wherein the filter media includes a clean side face;
injecting a second material directly onto a perimeter of the clean side face to form a rigid frame; and
injecting a third material directly onto the rigid frame to form a flange portion of a seal.
38. (New) The method according to claim 37 further comprising the step of forming, with the second material, a flexible portion extending from the flange portion.
39. (New) The method according to claim 38, wherein the flexible portion includes a pair of flexible flange portions that extend obliquely in divergent directions from the flange portion.

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40. (New) The method according to claim 38 further comprising the step of forming a rim portion from the third material, wherein the rim portion is bonded to a perimeter of the rigid frame.

41. (New) The method according to claim 38 further comprising the step of forming a second flange portion from the third material integrally-extending from the rigid frame in a perpendicular direction with respect to at least one side surface of the filter media, wherein the second flange portion is adapted to overlay and seal a ledge of the filter housing.

41. (New) The method according to claim 38, wherein the flexible portion includes a U-shape portion having a first leg and a second leg.

42. (New) The method according to claim 38, wherein the flexible portion includes a bulb seal including a void.

43. (New) The method according to claim 37, wherein the thermoplastic material is a thermoplastic elastic material (TPE) embedded in ethylene-propylene terpolymer (EPDM).

44. (New) The method according to claim 37, wherein the filter media is a pleated filter media comprised of cellulose, cellulose blends, polyester fibers, or polypropylene fibers.